

5 (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

15 Asp Asp Ala Arg Thr Arg Ser Val Leu Tyr Thr Gln Tyr Ile Ala Leu  
1 5 10 15

20 Glu Leu Asp Phe Leu Asn Ala Met Pro Leu Phe Ala Ile Arg Asn Gln  
25 30

25 Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His Leu  
35 40 45

30 Leu Leu  
20 50

35 (2) INFORMATION FOR SEQ ID NO:47:

40 (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

50 Asn Asp Ala Arg Ser Arg Ser Ile Ile Leu Glu Arg Tyr Val Ala Leu  
1 5 10 15

35 Glu Leu Asp Ile Thr Thr Ala Ile Pro Leu Phe Arg Ile Arg Asn Glu  
20 25 30

30 Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His Leu  
40 35 40 45

45 Leu Leu  
40 50

50 (2) INFORMATION FOR SEQ ID NO:48:

55 (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

Asn Asp Ala Arg Ser Arg Ser Ile Ile Leu Glu Arg Tyr Val Ala Leu  
1 5 10 15

5 Glu Leu Asp Ile Thr Thr Ala Ile Pro Leu Phe Arg Ile Arg Asn Glu  
20 25 30

Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His Leu  
10 35 40 45

Leu Leu  
50

15 (2) INFORMATION FOR SEQ ID NO:49:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

Asn Asp Ala Arg Ser Arg Ser Ile Ile Arg Glu Arg Tyr Ile Ala Leu  
25 1 5 10 15

Glu Leu Asp Ile Thr Thr Ala Ile Pro Leu Phe Ser Ile Arg Asn Glu  
30 20 25 30

Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His Leu  
35 35 40 45

Leu Leu  
35 50

40 (2) INFORMATION FOR SEQ ID NO:50:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

Asn Asn Thr Arg Ala Arg Ser Val Val Lys Ser Gln Tyr Ile Ala Leu  
50 1 5 10 15

Glu Leu Met Phe Val Gln Lys Leu Pro Ser Phe Ala Val Ser Gly Glu  
20 25 30

Glu Val Pro Leu Leu Pro Ile Tyr Ala Gln Ala Ala Asn Leu His Leu  
35 40 45

Leu Leu  
5 50

(2) INFORMATION FOR SEQ ID NO:51:

- 10 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 50 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

Asn Asn Thr Arg Ala Arg Ser Val Val Lys Asn Gln Tyr Ile Ala Leu  
1 5 10 15

20 Glu Leu Met Phe Val Gln Lys Leu Pro Ser Phe Ala Val Ser Gly Glu  
20 25 30

25 Glu Val Pro Leu Leu Pro Ile Tyr Ala Gln Ala Ala Asn Leu His Leu  
35 40 45

Leu Leu  
50

30 (2) INFORMATION FOR SEQ ID NO:52:

- 35 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

45 GGATCCCTCG AGCTGCAGGA GC

22

45 (2) INFORMATION FOR SEQ ID NO:53:

- 50 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 55 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ix) FEATURE:

- (A) NAME/KEY: modified\_base  
(B) LOCATION: 31..33